## SHORTER NOTES

It seems appropriate and practical that this widespread hybrid have a binomial. Perhaps providing this taxon with an epithet may raise botanists' awareness of this taxon and spur future discoveries and understanding of this hybrid.

Polypodium ×incognitum Cusick, hybr. nov.—Holotype: Ohio, Meigs County, sandstone exposures on mesic slope above Leading Creek, Co Rt 10, 0.25 mi (0.02 km) SW of Twp Rt 27, N of Dexter, Sect 6, Salem Twp, 6 Aug 1985, Cusick 24620, OS; Isotypes, MICH, MU, NY. Hybrida e Polypodium appalachianum et P. virginianum exorta, aliis char-

acteribus inter parentes media, sporis abortivus.

My research was supported in part by the Division of Natural Areas and Preserves, Ohio Department of Natural Resources.—Allison W. Cusick, Division of Natural Areas and Preserves, Ohio Department of Natural Resources, 1889 Fountain Sq. Ct., F-1, Columbus OH 43224.

Lycopodium lagopus New in West Virginia.-West Virginia is a southern outpost for many boreal species (e.g. Larix laricina in Preston County) that were stranded in the state's highlands and arctic-like bogs following the last glacial retreat (P.D. Strausbaugh and E.L. Core, Flora of West Virginia, Morgantown WV, Seneca Books, 1997). Along the Allegheny Front, elevations reach 1482 m (Spruce Knob) and there are ten peaks over 1430 m. Lycopodium lagopus (Laestradius ex C. Hartman) G. Zinserling ex Kuzeneva-Prochorova, (Fl. Murmansk Obl. 1:80, 1953), generally more northern in its distribution, was recently located here as well. A small, but thriving population grows on the site of a coal strip mine, now used as a cross country ski trail in Blackwater Falls State Park, Tucker County, at an elevation of about 1070 m. Its sister species, L. clavatum, is also here in abundance, but the two lycopods remain distinct; L. lagopus features single strobili on slender peduncles, a more compact growth habit, more appressed and shorter leaves, and sporophylls that taper gradually to a hair tip. Lycopodium lagopus (formerly L. clavatum var. monostachyon Hooker and Greville) goes by the apt common name "one-cone club-moss" (Flora of North America, New York, Oxford Univ. Press, 1993). It shares many characters with the common club moss, L. clavatum, e.g., general growth and branching patterns, stalked strobili, and hair-tipped leaves, but L. clavatum has multiple strobili (typically two) on most of its peduncles, spreading and longer leaves, and sporophylls that end abruptly in hair tips. No hybrids are documented between these closely related species, nor, for that matter, between any species in the genus Lycopodium s.s. This is in sharp contrast to the many hybrids described since 1956 within the related genera Lycopodiella, Huperzia, and Diphasiastrum (J. Eiger, Biol. Rev. City Coll. 18:17-22, 1956; Flora of North America).

As a boreal plant, L. lagopus occurs from Alaska to Newfoundland, Green-

AMERICAN FERN JOURNAL: VOLUME 92 NUMBER 3 (2002)

land, Scandinavia, and northern Eurasia. In the contiguous 48 states it has been reported from Maine, Michigan, Minnesota, Wisconsin, New York, New Hampshire, Vermont, and now West Virginia. Michigan would be the closest known neighbor of the West Virginia population, about 650 km distant (Flora of North America, cited above). The West Virginia site is the flat top of an abandoned coal strip mine within Blackwater Falls State Park, near the town of Davis. The park was established in 1937, and mining operations within its borders ceased prior to that. Since that time a remarkable assemblage of plants has reclaimed the coal spoils piled along the mine highwall. In cool ravines there is Tsuga canadensis, while on the open, sunny, coalstrewn areas Picea rubens, Acer rubrum, Rhododendron maximum, Kalmia latifolia, and Vaccinium species dominate the woody flora. Three orchids are prominent among the herbaceous plants- Cypripedium acaule, Platanthera clavellata, and Spiranthes cernua. Many grass, sedge, and Sphagnum species grow in the boggy soils near two ponds at the intersection of the Dobbin House and Woodcock ski trails in the area of L. lagopus. An impressive group of fern allies has also reclaimed this disturbed, acidic habitat, including Lycopodiella inundata on moist soil near the ponds. Diphasiastrum digitatum, D. tristachyum, and their hybrid D. ×habereri are abundant on exposed tailings. Lycopodium obscurum, L. dendroideum, and L. hickeyi also occur along the wooded edges. And, the aforementioned L. clavatum is found in nearly all surrounding habitats. Several Dryopteris species and Pteridium aquilinum (with some rare, fertile colonies) are also common in the immediate area. Asplenium montanum grows on granite rocks along the Pase trail nearby, and Vittaria appalachiana (Appalachian gametophyte) is spreading under a sandstone ledge near the prominent waterfall for which the 683 hectare (1688 acre) park is named. The Lycopodium lagopus colony consists of about a dozen long rhizomes, three occurring on exposed soil adjacent to the Woodcock Trail and the rest in a protected area about 6 m into low spruce woods beyond the trail. The colony is probably clonal and is quite fertile, nearly all upright shoots bearing characteristic single strobili when the site was surveyed in mid-July, 2001. A voucher specimen of one fertile, upright shoot was collected for deposit with the herbarium of the Carnegie Museum in Pittsburgh, PA (sheet No. 494379, CM). The origin of the "one-cone club-moss" here is uncertain, but it is hardly the only disjunct, rare pteridophyte known in West Virginia. The western species Asplenium septentrionale and Cheilanthes eatonii (C. castanea) occur on shale in Hardy and Monroe Counties (W. H. Wagner, Jr., Ann. Missouri Bot. Gard. 59:203-217, 1972).-JOAN EIGER GOTTLIEB, 2310 Marbury Road, Pittsburgh, PA 15221.